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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/500,867	07/21/2004	Masahide Ishikawa	040338	8698
23850 7590 07/23/2009 KRATZ, QUINTOS & HANSON, LLP 1420 K Street, N.W. Suite 400 WASHINGTON, DC 20005				
EXAMINER				
NERANGIS, VICKIE MARIE				
ART UNIT		PAPER NUMBER		
1796				
MAIL DATE		DELIVERY MODE		
07/23/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/500,867

Applicant(s)

ISHIKAWA ET AL.

Examiner

VICKEY NERANGIS

Art Unit

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 May 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-12 and 15-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-12 and 15-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date 3/12/09
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. All outstanding rejections are withdrawn in light of applicant's amendment filed on 5/18/2009.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior office action.
3. Upon updating the search, new prior art was uncovered. New grounds of rejection are set forth below. Thus, a 2nd non-final Office action is set forth as follows.

Claim Rejections - 35 USC § 112

4. Claims 10 and 11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claim 10, it is indefinite because of the term "and" after the description of component (B2) which allows for a combination of (B2) and (C1a). Claim 9 excludes a mixture of (B2) and (C1). Furthermore, the recitation of (C1a) in claim 10 seems to represent (C1). Using multiple nomenclature to represent a single thing is confusing.

With respect to claim 11, it is rejected for being dependent on a rejected claim.

Claim Rejections - 35 USC § 103

5. Claims 9, 12, and 15-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi '615 (US 6,238,615) in view of Kobayashi '863 (US 5,120,863).

Kobayashi '615 discloses a composition comprising polyolefin resin and dibenzylidene sorbitol and teaches that the addition of 0.05-20 wt % relative to dibenzylidene sorbitol of a melting point depressant such as 12-hydroxystearic acid (B2) (col. 8, lines 7-17) helps the dibenzylidene sorbitol be dispersed on a molecular level in the polyolefin resin (col. 7, lines 59-67).

Kobayashi '615 fails to disclose the addition of di(C₈ to C₂₂ alkyl or alkenyl) methylamine (C3).

Kobayashi '863 discloses dibenzylidene sorbitol compounds and teaches that adding an aliphatic amine such as distearyltrimethylamine (col. 5, lines 7-18), which is used in an amount of 0.1-20 parts by weight per 100 parts by weight of the diacetal (col. 5, lines 53-60) in order to prevent discoloration of the diacetal and to reduce odor (col. 2, lines 9-14).

Given that the addition of a dialkylmethyl amine results in a reduction of odor of the dibenzylidene sorbitol of Kobayashi '615 as taught by Kobayashi '863, it would have been obvious to one of ordinary skill in the art to add dialkylmethylamine to the polyolefin resin composition of Kobayashi '615 containing dibenzylidene sorbitol.

Claims 9, 12, and 15-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO '851 (WO 98/33851) in view of Kobayashi '863 (US 5,120,863).

It is noted that the international Patent Application WO publication is being utilized for date purposes. However, since WO 98/33851 is in Japanese, in the discussion below, the US equivalent for WO 98/33851, namely US 6,417,254 is referred to in the body of the rejection below. All column and line citations are to the US equivalent.

WO '851 discloses a diacetal composition comprising benzylidene sorbitol like presently claimed and a preferred binder such as behenyl alcohol (col. 6, line 67) in an amount of 2-20 parts by weight per 100 parts by weight of diacetal (col. 7, lines 12-21), wherein the diacetal composition is added to polyolefins in an amount of 0.01-3 parts by weight per 100 parts by weight of polyolefin resin (col. 10, lines 36-45).

WO '851 fails to disclose the addition of di(C₈ to C₂₂ alkyl or alkenyl) methylamine (C3).

Kobayashi '863 discloses dibenzylidene sorbitol compounds and teaches adding an aliphatic amine such as distearyltrimethylamine (col. 5, lines 7-18), which is used in an amount of 0.1-20 parts by weight per 100 parts by weight of the diacetal (col. 5, lines 53-60) in order to prevent discoloration of the diacetal and to reduce odor (col. 2, lines 9-14).

Given that the addition of a dialkylmethyl amine results in a reduction of odor of the dibenzylidene sorbitol of WO '851 as taught by Kobayashi '865, it would have been obvious to one of ordinary skill in the art to add dialkylmethylamine to the polyolefin resin composition of WO '851 containing dibenzylidene sorbitol.

6. Claims 9-12 and 15-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO '851 (WO 98/33851) in view of Kobayashi '843 (US 6,245,843).

It is noted that the international Patent Application WO publication is being utilized for date purposes. However, since WO 98/33851 is in Japanese, in the discussion below, the US equivalent for WO 98/33851, namely US 6,417,254 is referred to in the body of the rejection below. All column and line citations are to the US equivalent.

WO '851 discloses a diacetal composition comprising benzylidene sorbitol like presently claimed and a preferred binder such as behenyl alcohol (col. 6, line 67) in an amount of 2-20 parts by weight per 100 parts by weight of diacetal (col. 7, lines 12-21), wherein the diacetal composition is added to polyolefins in an amount of 0.01-3 parts by weight per 100 parts by weight of polyolefin resin (col. 10, lines 36-45).

WO '851 fails to disclose the addition of sulfate salts (C1) to the binder.

Kobayashi '843 discloses a benzylidene sorbitol composition for use with polyolefins and teaches that the addition of a sulfate binder such as salts of sulfates (col. 9, lines 45-55) (e.g., sodium lauryl sulfate, Example 36) are used in amounts of 0.2-25 parts by weight per 100 parts by weight of diacetal in order to depress melting point (col. 8, lines 39-48) so that the diacetal composition readily dissolved or disperses at the molecular level into molten polyolefin resin (col. 32, lines 24-34).

Given that a binder comprising a sulfate salts like taught by Kobayashi '843 provides for improved dispersion of the diacetal composition into molten polyolefin, it would have been obvious to one of ordinary skill in the art to add said sulfate salts into the binder of WO '851 for said advantages.

Response to Arguments

7. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vickey Nerangis whose telephone number is (571) 272-2701.

The examiner can normally be reached on Monday - Friday, 8:30 a.m. - 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

7/23/2009
vn

/Vickey Nerangis/
Examiner, Art Unit 1796